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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,722	05/24/2006	Yucheng Li	CN03 0036 US1	6472

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EXAMINER
SARWAR, BABAR

ART UNIT	PAPER NUMBER
2617	

NOTIFICATION DATE	DELIVERY MODE
01/02/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

	Application No.	Applicant(s)
	10/580,722	LI ET AL.
Office Action Summary	Examiner	Art Unit	
	BABAR SARWAR	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 May 2006</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-24</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-24</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>24 May 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 16-20 are rejected under 35 U.S.C. 102 (e) as being anticipated by

Jechoux et al. (US 2007/0030885 A1), hereinafter referenced as Jec.

Consider **claim 1,** Jec discloses a method for supporting downlink JD (joint

detection) in a TDD CDMA communication network system (Abstract, 0004, 0015-

0018). Jec further teaches that (a) judging whether the CAI (code allocation information)

in a downlink timeslot will change in the next TTI (transmission time interval) (Abstract,

Para 0017-0019, where Jec discloses midambles and transmission parameters

respectively allocated to mobile stations); (b) inserting the changed CAI as a specific

control information into a specified field in the traffic burst in the downlink timeslot

corresponding to current TTI if the CAI will change; and (c) sending the traffic burst

containing the specific control information to each UE (user equipment) in the downlink

timeslot via a downlink channel (Abstract, Para 0003-0007, 0015-0028, 0038-0041,

0043-0051 figs. 1-3, 5-6).

Consider **claim 2,** Jec discloses everything claimed as implemented above (see claim 1). In addition, Jec teaches that when establishing connection with a UE, the network system sends the initial CAI to the UE (Abstract, 0023-0024).

Consider **claim 3,** Jec discloses everything claimed as implemented above (see claim 2). In addition, Jec teaches that wherein step further includes (a) (al) judging that the CAI changes if at least one active UE leaves the downlink timeslot, (a2) reclaiming the spreading code resource released by the UE; wherein the changed CAI in step (b) is the CAI after the spreading code resource is reclaimed (Abstract, Para 0003-0007, 0015-0028, 0038-0041, figs. 3, 5-6).

Consider **claim 4,** Jec discloses everything claimed as implemented above (see claim 2). In addition, Jec teaches that the step (a) further includes: (a l) judging that the CAI changes if at least one UE joins the downlink timeslot; (a2) allocating spreading code resource to the UE; wherein the changed CAI in step (b) is the CAI after the spreading code resource is allocated (Abstract, Para 0003-0007, 0015-0028, 0038-0041, figs. 3, 5-6).

Consider **claim 5,** Jec discloses everything claimed as implemented above (see claim 2). In addition, Jec teaches that the step (a) further includes: (a l) judging that the CAI changes if the spreading code resource in the downlink timeslot is reallocated to realize optimized configuration of the resource in the downlink timeslot; wherein the changed CAI in step (b) is the CAI after the spreading code resource is reallocated (Abstract, Para 0003-0007, 0015-0028, 0038-0041, figs. 3, 5-6).

Consider **claim 6,** Jec discloses everything claimed as implemented above (see

claim 2). In addition, Jec teaches that the specific control information allows each UE in

the downlink timeslot to perform one of the two JD methods of ZF-BLE and MMSE-BLE

(Para 0017, 0018).

Claim 7, as analyzed with respect to limitations as discussed in claim 1.

Claim 8, as analyzed with respect to limitations as discussed in claim 2.

Claim 9, as analyzed with respect to limitations as discussed in claim 6.

Claim 16, as analyzed with respect to limitations as discussed in claim 1.

Claim 17, as analyzed with respect to limitations as discussed in claim 2.

Claim 18, as analyzed with respect to limitations as discussed in claim 3.

Claim 19, as analyzed with respect to limitations as discussed in claim 1.

Claim 20, as analyzed with respect to limitations as discussed in claim 2.

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

Claims 10-15, 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by

Jechoux et al. (EP 1143638 A1), hereinafter referenced as Jec.

Consider **claim 10,** Jec teaches a method for supporting downlink single-user JD

in a TDD CDMA communication network system (Abstract, -00030004, 0014-0018). Jec

further discloses that (a) judging whether the ACN (active code number) in a downlink

timeslot will change in the next TTI (Abstract, where Jec talks about spreading codes,

midambles, and transmission parameters); (b) inserting the changed ACN as a specific

control information into a specified field in the traffic burst in downlink timeslot

corresponding to current TTI if the ACN will change; (c) sending the traffic burst

containing the specific control information to each UE in the downlink timeslot via

downlink channel (A abstract, Para 0003-0017, 0021-0046, figs. 3, 5-11).

Consider **claim 11,** Jec discloses everything claimed as implemented above (see

claim 10). In addition, Jec teaches that the network system sends the initial ACN to the

UE when the network system establishes connection with the UE (Abstract, 0012-0013).

Consider **claim 12,** Jec discloses everything claimed as implemented above (see

claim 11). In addition, Jec teaches that the specific control information allows each UE

in the downlink timeslot to perform an MMSE-BLE-SD JD algorithm (Para 0014-0017).

Claim 13, as analyzed with respect to limitations as discussed in claim 10.

Claim 14, as analyzed with respect to limitations as discussed in claim 11.

Claim 15, as analyzed with respect to limitations as discussed in claim 12.

Claim 21, as analyzed with respect to limitations as discussed in claim 10.

Claim 22, as analyzed with respect to limitations as discussed in claim 11.

Claim 23, as analyzed with respect to limitations as discussed in claim 10.

Claim 24, as analyzed with respect to limitations as discussed in claim 11.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to BABAR SARWAR whose telephone number is

(571)270-5584. The examiner can normally be reached on MONDAY TO FRIDAY

09:30 A.M -05:00 P.M.

    If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

    Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BS/   /BABAR SARWAR/
                                                  Examiner, Art Unit 2617

/NICK CORSARO/
Supervisory Patent Examiner, Art Unit 2617